

PROGRESS REPORT

OF

FOREST ADMINISTRATION

IN THE

MARWAR STATE

FOR

1898-99

Introduction.

1. Siwana Forests, 40 square miles in area, were taken over and demarcated.
2. The formation of Fuel and Fodder Reserves in Khalsa villages was steadily carried on and 1310 acres in Sojat and Pali Parganas were taken up.
3. *Lac Industry*—Remembering the similarity of climatic conditions it was decided that larvæ of lac-insect (*coccus lacca*) be obtained from Sindh and planted on to suitable trees in Marwar. The year proved too dry and the experiment could not be undertaken. It will be instituted as soon as more favourable conditions offer themselves.
4. Arrangements are in progress for conserving Jalore and Jaswant-pura forests and they will be demarcated as soon as the State stands clear-handed of the present famine.

CHAPTER I.

Areas and Boundaries.

5. The area of Khalsa forests had an increase of 6 and that of Jagir 34 square miles by the conservation of Siwana forests. Thus the total area in charge of the Forest Department stood as follows, at the close of the year:—

Khalsa forests	...	...	265·11 square miles
Fuel and fodder Reserves	...	...	7·70
Jagir forests	...	...	70·37
Total			343·18

6. The replacement of *kacha* boundary pillars by masonry ones was continued. 114 pillars more in Khalsa and 20 in Jagir forests were put in at a cost of Rs. 174/- and Rs. 38/- respectively. The work could not be pushed on quite briskly for want of water near the boundary.

7. All the *kacha* pillars were white-washed and kept in good order.

CHAPTER II.

Surveying, Working Plans, and Plan of operations.

8. As referred to in para 7 of the last year's report, Boglan, Ganga-ro-gudho and Karmal forests were further surveyed and plotted, along with Lampi and Kot from last year's field work, on to paper by Forest Ranger Raksheshur. Ranger Chatur Bhuj prepared maps of Somesar, Ganthi and Vagol, the field work having been completed last year. The field work does not compare favorably with the turn-out of the preceding two years. The plotting was in progress when the year closed.

9. In Raipur Forest Ranger Jagan Nath had a respectable item of work to show. He further surveyed and mapped out 4279 acres in Malani, Lawachan and Kalab-khurd forests. Girri and Pachanpura will be next taken in hand and the survey in these Jagir forests will be complete by the end of next year.

10. The experimental Working Plan of Desuri forest referred to in para 7 of last year's report was put in force. It could not be taken in hand till late in the year and 13 acres of Dhaw (*A. pendula*) working circle were only coppiced to end of March 1899. Forty standards of Dhau per acre were left in addition to the Nim (*Melia indica*) trees that were allowed and in Mar-war must always be allowed to stand unmolested.

11. A Plan of operations was as usual prepared and acted up to. The deviations were too few to claim mention.

CHAPTER III.

General protection Breaches of the Law.

12. The criminal tribes, with the exception of Minas of Sadhri, Jhumpa, Sewari, Bijapur and Sena, behaved well. The latter (Sena, Sewari &c.) continued obstinate and any thing short of a very strong disposition on part of the local Magistrates would only induce them further to disrespect the Forest Laws.

13. Rawats from Kachhabali and Pithan-ka-gudha on the British side gave trouble. They are very favorably situate, with a handy market (Deogurh) before them, just on the border and they were not idle to make the best of their position to pilfer and profit. They were caught red-handed and chalaned to Hakumat for trial but unreasonable leniency shown to them there only rendered them bolder.

14. The Grassias of Bhimana and Thandiberi showed some disposition to reconcile and took out permits for the timber cut which they never did before.

15. The Honorary Court of Raipur tried 4 cases involving 13 persons. Convictions were obtained in 3 and one remained pending.

16. 23 cases involving 45 persons were chalaned to Hakumats and 9 pending from the last year brought the total to 32. Of this 27 cases were disposed of and the rest remained pending.

17. 538 cases were compounded departmentally against 263 last year. Of the increase, rather astounding, the new range of Siwana accounts for 76 and a dry famine year for the remainder.

18. The following table compares the results of the two years.

Range.	CASES COMPOUNDED.			Average per case.			Average per person.			Remarks.
	Number of cases.	Number of persons.	Amount.							
Sewari	227	661	425 11 6	1	14	0	0	10	3	
Desuri	28	81	80 0 0	3	1	2	1	1	0	
Sojat	109	144	145 7 9	1	5	4	1	0	2	
Siwana	76	120	257 6 0	3	6	2	2	2	4	
Total	440	1,006	914 9 3	2	1	3	0	14	7	
Raipur	98	126	132 8 3	1	5	8	1	0	10	
Ghanerao ... ..	...	...	... ..	...	...	...	...	...	...
Grand total ...	538	1,132	1,047 1 6	1	15	2	0	14	9	
1897-98	263	401	508 6 9	1	14	11	1	4	3	

Grass and grazing.

19. As before the forests remained closed to camels, sheep and goats rough-out the year and open to horned cattle from 1st April to end of July and again from 16th October to end of the year.

20. The revenue work of the Grassia villages remained with the Forest Department, (para 17 of last year's report), and the utility of the step is making itself felt.

21. There was very little grass outside the forests and the state cavalry (about 1,500 horse and pony) had their supply of grass from the forest during 6 months amounting approximately to 60,000 *maunds*.

22. As in the last year grass cutting without payment was allowed to cultivators from 15th October to 15th December 1898 and to non-cultivators from 1st November to 15th December 1898. After this period market rates were made to apply. It is satisfactory to note that the limitation of time is gaining favor with the people concerned.

23. The following statement shows the number of cattle grazed in the forests:—

Range.	CATTLE.				Remarks.
	Right holders.	Outsiders.	Free	Total.	
Sewari ...	11,795	410	.....	12,205	
Desuri ...	4,596	1,384	.....	5,980	
Sojat ...	6,731	715	.....	7,446	
Siwana ...	2,069	379	.....	2,448	
Parbatsar ...	688	.....	.....	688	
Raipur ...	3,887	622	.....	4,509	
Ghanerao ...	979	3	171	1,153	
Total ...	30,745	3,513	171	34,429	
1897-98 ...	19,555	1,104	.....	20,659	

24. 8,858 cattle were impounded for illicit grazing against 3,769 during 1897-98, as detailed in the table below:—

Range.	DESCRIPTION OF CATTLE.				Total.	Remarks.
	Cows.	Buffaloes.	Sheep and goats.	Others.		
Sewari ...	110	10	852	8	980	
Desuri ...	463	249	1,256	3	1,971	
Sojat ...	660	71	1,326	65	2,122	
Siwana ...	194	36	2,841	87	3,158	
Raipur ...	272	40	149	2	463	
Ghanerao ...	97	1	56	10	164	
Total ...	1,796	407	6,480	175	8,858	
1897-98 ...	1,000	194	2,454	121	3,769	

Forest fires.

25. Cutting of trees and shrubs out of the main fire line between Marwar and Meywar was continued and Rs-123/ spent over the work.

26. As stated before the Sirohi Forest officer and the Mirpur Jagirdar in Meywar did not again co-operate and thus a length of 11 miles only could be gone over. Their forests adjoin the Marwar forests and prove no small source of danger whenever on fire.

27. The main and intermediate fire lines were as usual cut and burnt.

28. The rains held off abnormally and in consequence very little grass came up. This very little was, the fodder being so scarce, in its turn soon taken away to the last blade by the rightholders and purchasers. The country had then the fallen leaves in the forests, locally called Khaka, to fall upon. Before the fire season set in the forests were swept clean of every inflammable material, grass and leaves, and the forests remained, through this natural state of affairs, entirely safe. Only 4 acres as against 2579 last year, were burnt in Godhwar Range. The fire was mere accidental and the offender was allowed to compensate for it.

Natural Reproduction.

29. The year under report proved extremely unfavorable for natural reproduction, owing to the absence of rains. Not only there was no natural regeneration but seedlings of the previous years that were fast establishing themselves died down for want of moisture.

As stated in para 10 coppice work in Desuri forest was stated as the work did not much progress to close of the year the result will be given later on.

30. The following table will show the results of the areas coppiced previously.

Godhwar Range.

		L.	G.
Sadhri	{ Kantia, Dhao	6'	1½"
	{ Khair	9'	4"
	{ Kumatia	6'	1"
Behra	{ Dhao	12·4'	3·9"
	{ Khair	11·5'	3·3"
	{ Seris	11·7'	3"
	{ Gol	12	4·5"

Sojat Range

Gudha Dhamata Kantia Dhao	15'	10"
Khair	16'	7"
Gol	20'	12"

31. In Raipur forest 70 acres in Kalap Kalan 44.5 in Majhola and 50 in Lawachan were decided to be coppiced by contract. Of this 70 acres in Kalap Kalan could only be coppiced and 150 camel loads of fuel were sold at 13/ per camel. But the demand in fuel soon fell off and the rest of outturn had to be made into coal and sold at 1/6 per maund. Rs-606/ were realized from as much area last year against Rs-319/ this year and in future fuel only will be sold and coal making disallowed.

32. The coppice shoots measure as follows :—

Kanjuja forest coppiced in 1894-95.			Kalap Kalan forest coppiced in 1895-96.		
	L.	g.		L.	g.
Kantia dhao	5 $\frac{1}{2}$ '	1 $\frac{1}{2}$ "	Kantia dhao	4 $\frac{1}{4}$ '	1 $\frac{1}{2}$ "
Kalia Siris	7 $\frac{1}{2}$ '	2 $\frac{1}{2}$ "	Kalia Siris	5 $\frac{1}{2}$ '	2"
Gol	7'	3"	Gol	8 $\frac{1}{2}$ '	2 $\frac{1}{2}$ "
Khair	5 $\frac{1}{2}$ '	2 $\frac{1}{2}$ "	Khair	5'	2 $\frac{1}{2}$ "
Nim	7 $\frac{1}{2}$ '	2"	Nim	5'	2"
1895-96.			1896-97.		
Dhau	3 $\frac{1}{2}$ '	1"	Dhau	3'	0
Kalia Siris	5'	2"	Kalia Siris	3 $\frac{1}{2}$ '	0
Gol	4 $\frac{1}{2}$ '	2 $\frac{1}{2}$ "	Gol	6 $\frac{1}{2}$ '	0
Khair	4'	1 $\frac{1}{2}$ "	Khair	4 $\frac{1}{2}$ '	0
Nim	5'	2"	Nim	3'	0
1896-97.			1897-98.		
Dhau	2 $\frac{1}{2}$ '	0	Dhau	2'3"	0
Khlia Siris	4'	0	Khlia Siris	2'	0
Gol	4'	0	Gol	5'	0
Khair	3'	0	Khair	2'9"	0
Nim	3 $\frac{1}{2}$ '	0	Nim	3'6"	0
1897-98.					
Dhau	3'	0			
Kalia Siris	4'	0			
Gol	5'6"	0			
Khair	3'3"	0			
Nim	4'3"	0			

Artificial Reproduction.*Godhwar Range.*

33. The well-holders showed no propensity to take mango plants and the nursery at Nagar was in September given up. Of the plants then in nursery 612 were put out along certain fields where they could occasionally be watered.

Of this 197 survived to end of the year only to fall prey to the present drought. Teak, babul and other seeds were sown into nurseries at Sewari and in forests as well only to be lost to the ground.

34. 920 bamboo rhizomes in Behra and 1000 in Sewari forests were planted. They did well for a while but soon died.

Desuri Range.

35. Babul and Sisso seeds were sown in pits in Somesar and Kot forests. They germinated well but died soon for want of moisture.

Sojat Range.

36. 10 acres of blank in Badagudha and as many in Deodungri forests were sown with babul seed. The germination was good but their death for want of moisture was as certain.

Raipur Range.

37. 5 acres in Kanuja and Girri were sown with Dhak, babul &c. The seed did not germinate at all.

Ghanerao.

38. The old plantation and nursery at Kaka-ji-ki-baori were kept up. The plants Mohwa, Mango and Jaman &c are artificially watered from a well and were in good state. No new plants were put out.

Roads and Buildings.

ROADS.

39. *Godhwar Range.*—A new bridle path $5\frac{1}{4}$ miles long was laid out in the Bijapur forest at a cost of Rs. 188/0/6.

40. The roads and paths in Nana and Behra forests were repaired at a cost of Rs. 8/0 and Rs. 4/5/0 respectively.

41. *Desuri Range.*—No new roads or paths were laid out. The old roads were repaired and kept in good order.

42. *Sojat Range.*—A new cart road from Gudha Dhamatan to Kajal-was, started last year, was completed at a cost of Rs. 119/14/6. It is 129 chains long.

43. The cart track from Saran to Bayar was repaired at a cost of Rs. 13/15/0.

44. The construction of the Rughna-ghati bridle path from Khorla to Khejri-ka-bala-ki-gawar was taken in hand. 120 chains of it were gone over at an expenditure of Rs. 42/7.

45. *Raipur Range*.—Two small foot paths $1\frac{1}{2}$ mile long were laid out anew in Kalap Kalan forests as also repairs were done to the old ones. The cost was Rs. 23/0.

46. The bridle path in Majhola forest that remained unfinished last year was taken in hand and $\frac{1}{4}$ mile of it prepared at a cost of Rs. 98/0 inclusive of cost of repairs to other paths.

Ghanerao.

47. The old cart track in the Nal was repaired at a cost of Rs. 1/8.

Buildings.

48. *Godhwar Range*.—A new forest *chauki* was erected at Bhimana and Rs. 10/13/9 spent over it.

49. The Bijapur forest *chauki* was extended by the addition of a room at an expense of Rs. 25/15/0.

50. At Nana a forest *chauki* was erected at an expense of Rs. 96/13/9.

51. Behra, Sewari and Sadhri *chaukis* were repaired and Rs. 20/6/6 spent on the work.

52. *Desuri Range*.—One forest guard's hut was built at Ganthi and another at Bansore at a cost of Rs. 10/0 and Rs. 11/10/ respectively.

53. A forest *chauki* was built at Vagol for Rs. 52/10/2.

54. The forest office at Desuri was extended and Rs. 24/ spent over the work.

55. *Sojat Range*.—The forest house at Saran was extended by the addition of an office room at a cost of Rs. 54/4/6.

56. The forest *chaukis* at Shiryari, Badagudha and Phulad were repaired and kept in good order at a cost of Rs. 12/10/6.

CHAPTER IV.

Yield and Working.

57. The total outturn of timber and fuel expressed in cubic feet compares with that of the previous year as follows:—

The summary of produce removed from the forest.

Description.	TIMBER.		FUEL.		Remarks.
	1897-98.	1898-99.	1897-98.	1898-99.	
Removed by Raj Agency ...	2,675	1,642	22,372	25,552	
„ „ Purchasers ...	42,846	40,081	95,919	1,59,247	
„ „ Right holders ...	34,264	28,497	2,66,060	2,46,496	
„ „ Free grants ...	.....	.....	.....	.....
Total ...	79,785	71,120	3,84,351	4,31,295	
Raipur ...	.....	4,142	.....	1,41,624	
Ghanerao ...	.....	3,364	.....	7,120	
Grand total ...	79,785	78,626	3,84,351	5,80,039	

58. The comparative value of minor produce removed during the year under report and that of the previous one is as follows:—

Description.	VALUE.		Remarks.
	1897-98.	1898-99.	
Removed by Raj Agency ...	915	595	
„ „ Purchasers ...	2,765	4,260	
„ „ Right holders ...	7,315	8,810	
„ „ Free grants ...	.....	.....
Total ...	10,995	13,674	
Raipur ...	.....	3,086	
Ghanerao ...	.....	551	
Grand total ...	10,995	17,311	

59. The removal of timber, as was anticipated decreased and that of fuel, except in case of right holders, increased. It was a famine year and the prospects of trade in timber were very much obscured. The timber did not find a ready sale and traders began soon to withdraw their capital to other more promising branches of trade. The Department also curtailed its working.

I. Departmental operations.

60. The outturn of timber by Raj Agency fell from 2675 to 1642 owing mainly to want of a ready market.

61. The outturn of fuel was increased by about 3180 cubic feet. 3695 maunds of fuel were collected from Nana forest and this added on to the last year's balance brought the total to 4580. Of this 4260 maunds were supplied to the central Jail at Jodhpur

62. 202 maunds of charcoal were prepared in Nana forest. Of this 153 maunds were sent to the mint at Jodhpur and the balance sold locally.

63. 3000 bamboos were cut from Nana forest and sent to the sale Depot at Pali, and 612 from Desuri Forest were utilized for the state garden there.

64. The value of minor produce amounted to Rs. 993/ against 353/ during the last year. The increase was due to sale of about 1,800 maunds of grass to the state cavalry (Sirdar Risala).

II. Removals by purchasers.

65. As stated in para 59 the removal of timber by purchasers fell down by 1865 cubic feet.

66. The outturn of firewood removed by purchasers was greatly enhanced, being 63,328 cubic feet in excess of the total last year. The neighbouring population (chiefly agricultural people) found no crops coming up and had to decide upon some means of sustenance. Collecting fuel from forests and selling it to the population removed away from forests was the easiest at their command. They therefore very eagerly took to it and brought in the said increase.

67. 957 maunds of charcoal were also prepared by the purchasers.

68. 40,225 bamboos were removed by the purchasers against 49,272 during the last year. There is thus a decrease of 9,047.

69. Rs. 2,118 were realized by sale of grass and grazing against 618/ last year. There was very little grass to be found elsewhere and the cattle flocked into the forest and caused the increase.

70. Under minor produce Rs. 1,326 were realized as against Rs. 1,007 last year. The increase was due to the opening of Siwana and Parbatsar Ranges.

III. Free grants and removal by right holders.

71. No free grants were made during the year under report, but produce given free to right holders is treated under the head of right holders.

72. The right holders removed produce as follow:—

(a) TIMBER.

73. A class free of charge	...	24,476	cft.
B. and C. classes at reduced rates		4,021	„
		<hr/>	
Total	...	28,497	„
		<hr/>	

(b) FIREWOOD.

74.	A. and B. classes free of charge	1,68,559 cft.
	C. class at reduced rates	77,937
	Total ...	<u>2,46,496</u>

(c) BAMBOOS.

75.	A class free of charge	... 100
	B. and C. classes at reduced rates	... 864
	Total ...	<u>964</u>

(d)

I. GRASS AND GRAZING.

76.	A. and B. classes free of charge	9,014 Mds.
	C. class at reduced rates ...	35,413 „
	Total ...	<u>44,427</u>

II. GRAZING.

77.	A. class free of charge	... 6,604 Hd. of cattle.
	B. and C. classes at reduced rates	19,275 „
	Total ...	<u>25,879</u>

(e) MOHYA AND KANRI.

78.	A. class free of charge	... 5,237 Hd. load.
	B. and C. classes at reduced rates	3,590 „
	Total ...	<u>8,827</u>

CHAPTER V.*Financial results.*

71. The actual revenue was Rs. 28,643/- i. e. 5,728/- more than the previous year. The net surplus was Rs. 7,718/- against Rs. 3,481 of 1897-98.

80. The expenditure rose to Rs. 20,925/- against Rs. 20,434 during 1897-98 owing to the opening of Siwana and Parbatsar Ranges.

81. The receipts and charges for the last 3 years compare as follows :—

Particulars.	1896-97.	1897-98.	1898-99.	REMARKS.
Receipts ...	22,333	23,915	28,643	
Charges ...	19,158	20,434	20,925	
Surplus ...	3,175	3,481	7,718	

82. The financial results of the Jagir forests stand as follows :—

<i>Raipur</i>		1897-98.		1898-99.
Receipts	...	2,300—0—0	...	4,444—0—0
Expenses	...	1,524—0—0	...	1,541—0—0
Surplus	...	776—0—0	...	<u>2,903—0—0</u>
<i>Ghanerao.</i>				
Receipts	...	698—0—0	...	834—0—0
Expenses	...	356—0—0	...	358—0—0
Surplus	...	342—0—0	...	<u>476—0—0</u>
<i>Bar.</i>				
Receipts	...	61—0—0	...	273—0—0
Expenses	...	43—0—0	...	55—0—0
Surplus	...	18—0—0	...	<u>218—0—0</u>
<i>Barantia.</i>				
Receipts	...	79—0—0	...	164—0—0
Expenses	...	63—0—0	...	68—0—0
Surplus	...	16—0—0	...	<u>96—0—0</u>
<i>Babra</i>				
Receipts	...	38—0—0	...	303—0—0
Expenses	...	61—0—0	...	77—0—0
Surplus	...	23—0—0	...	<u>226—0—0</u>
<i>Somel.</i>				
Receipts	...	523—0—0	...	530—6—6
Expenses	...	90—0—0	...	66—2—0
Surplus	...	433—0—0	...	<u>464—4—6</u>

CHAPTER VI.

Village Fuel and Fodder Reserves.

83. The formation of village Fuel and Fodder Reserves was continued and 1,310 acres in Khamal, Sodawas, Bomadra, Miniari and Bálá were taken up. On the other hand the reserve in Panchwa khurd amounting to 689 Bighas was given up, as it was situate just near the village and proved, in a way, inconvenient to the villagers.

84. The following are the details of the areas under treatment at close of the year :—

<i>Names</i>				<i>Area in bighas.</i>
Bambholai	...	...	...	1,800
Sampa	...	...	...	554
Sowania	...	...	...	437
Deoli	...	...	...	1,400
Udesi kuwa	...	...	...	1,329
Khamal	...	...	...	295
Sodawas	..	...	...	78 $\frac{3}{4}$
Bomadra	...	...	...	464 $\frac{1}{4}$
Miniari	...	...	...	1303
Bala	...	...	...	1136
Hemliawas	...	...	...	150
Barsan	...	...	...	100
Gudha Bishnoyan	...	...	...	1,000

85. Sowings were made in all the Reserves old and new but with no good results. The rains held off and the seed in some places did not germinate at all and in others died soon after germination.

86. In Hemliawas Reserve of the 2,324 plants of the last year many died down through want of moisture.

87. Barsan lost similarly and so did Nayagaon and others.

88. In Murdawa Reserve 90 acres were coppiced in the years before and the coppice shoots, though thrown back in growth, were doing well.

89. Famine as a famine was really much to be deplored and the country may, so grant Almighty, be spared the dire scourage. It however created a chance for the utility of these Reserves to be practically realized. The Reserves of Deoli, Mourdawa, Udesi kuwa and Bambholai did a good service to the agricultural population concerned. They had an abundance of grass and they were thrown open to the grazing of the surrounding cattle just when the pinch of fodder famine began to be felt. The people were thus through the help of these reserves kept back from migrating in tears to the grassy lands of Malwa. It is very strongly recommended that formation of such reserves should be carried on from year to year.

90. The financial results for the Fuel and Fodder reserves stand as follows:—

Revenue.		Expenditure.
Rs. 281—0—0	Establishment	Rs. 722—0—0
	Sowing and planting	211—0—0
	Fencing	.....
	Improvement	147—0—0
	Miscellaneous	129—0—0
	Total ...	1209—0—0

CHAPTER VII*Arboriculture.*

91. No new plantations were formed. The plantations at His Highness's Bungalow were extended and 2,272 plants made up of 297 mangocs, 1,705 Jaman, 172 Nim, 83 Siris, 99 Shishum and 16 miscellaneous were put out as under:—

Plantations Nos. 8 and 9	...	...	550
Behind the Bungalow	...	...	1,211
Polo ground	...	...	160
Race Course	...	...	351
Total			2,272

92. 64 mangoes and 3 Jamans were planted out at Bera Chensookh and 225 mangoes at Chopasani, 17 mangoes were planted out at the Swimming Bath attached to Thakur Hari Singh's Bungalow.

93. 3,139 plants of various species were utilized in making good the failures along roads &c.

94. The nursery at Bera Chensookh supplied planting material for Takhatsagar road and contained 225 plants at close of the year.

95. The old nursery at Balsamand was kept up and contained 600 Nim, 150 Shishum, 100 Jaman, 75 Siris, 175 Bakain and 50 pomegranates plants.

96. The nursery in plantation No. 8 at His Highness's Bungalow had 100 Jaman, 1,500 Nim, 200 Shishum and 150 Siris plants at close of the year.

97. Small nurseries were also kept up at Chittar, Plantation No. 7 and Badabhakar.

98. 3,106 pits were dug out and 1846 Kacha Golras prepared for the protection of plants. 3,000 cf. of ditch was dug round the nursery at Bera Chensookh.

99. 24,751 plants received no watering while 24,521 did.

100. The revenue from arboriculture amounted to Rs 243/ derived chiefly by sale of plants.

The expenditure was as follows:—

		Actual for 97-98.	Actual for 98-99.	Sanctioned for 98-99.
Protective Establishment	...	1,215	1,270	1,248
Office	Do.	180	180	180
Watering	Do.	7,740	9,621	11,131
Malis	Do.	2,999	3,494	3,750

Working of wells	...	679	...	563	...	} 1,550
Feed and keep of bullocks	...	2,099	...	1,619	...	
Nurseries and planting	...	297	...	432	...	553
Fencing	...	1,165	...	2,284	...	2,130
Tools	...	9	...	15	...	...
Badabhakar	...	1,351	...	182	...	215
Chhettar	...	6	...	0	...	0
Miscellaneous	...	1,036	...	882	...	856
Total	...	18,776	...	20,542	...	21,613

CHAPTER VIII.

Gardens.

102. Nanna Mian's garden and the Raj Bagecha at Jodhpur and the Sadri Bund Garden at Sadri were added to the charge of the department during the year.

103. The Residency and other bungalow gardens were looked after as usual and kept in good order.

104. The Ratanada Garden and the nursery there were kept up and the latter contained 600 mango and 1900 Jaman plants at close of the year.

105. The Nanna Mian's garden had about 700 graft *Zyzphus* plants in addition to the flowering plants.

106. The Desuri Palace gardens were looked after by the Ranger there. The rains held off, and very little could be done to improve them.

107. The Sadri Bund garden has about 700 fine graft mangoes. A nursery was started there further to stock and improve it. Unfortunately rains held off and nothing could be done.

108. At Sewari an area about 2.5 Bighas was sown with Indian and English Vegetables for supply of Musahib Ala's Camp. The camp was subsequently broken up and the vegetables sent to him at Jodhpur.

109. As stated in para. 120 of last year's report cavalry horse continued to be supplied with lucerne grass.

110. The Balsamand, Mandore and Takhtsagar Darogas remained as irregular as last year and their work thus could not be included in the report.

111. The financial results of the gardens, excepting the above three, were as follows:—

Revenue.	Expenditure.
187-0-0	10,061-0-0

CHAPTER IX.

General.

112. Two Jamiat Sowars of the Kot Jagirdar remained with this department only just to break the monotony of "entire absence." As stated in para 123 of last year's report, the Hakumats were ordered to supply the necessary Sowars but they never did and mercenary Sowars had to be employed as before.

113. Pandit Gokal Das remained in charge of the department till 11th February, when he got a lift and left for good to join the Forest Service Panjab, handing over charge to the writer and carrying with him the good wishes and regards of all that had an opportunity to work under him.

114. Forest Ranger Rakheshwar remained in charge of the Desuri Range throughout the year.

115. Forest Ranger Gokal Chand held charge of Godwar Range and supervised the revenue work of the Grassia villages.

116. Forest Ranger Dowlat Ram was transferred to the newly created Siwana Range, Ranger Chatar Bhuj taking his place in Sojat Range. Chatar Bhuj seems inclined to justify the hopes the late Superintendent placed in him.

117. Ranger Jugan Nath held charge of the Raipur Range. He has surveyed almost all the Raipur forests and has an excellent work to show.

118. The office establishment worked satisfactorily.

119. The following forms are hereto attached :—

Form	...	...	...	...	No. 49
"	...	...	...	...	" 50
"	...	...	...	...	" 51
"	...	...	...	...	" 54
"	...	...	...	...	" 55
"	...	...	...	...	" 56
"	...	...	...	...	" 58
"	...	...	...	...	" 59
"	...	...	...	...	" 60
"	...	...	...	...	" 61
"	...	...	...	...	" 62

Forest Department Marwar. Area of Forest 1898-99.

State.	Range.	AREA ON 1ST APRIL 1898.		Added during the year.	Excluded or trans- ferred to other heads.	AREA ON 1ST APRIL 1899.		Number and date of kafayat of addition and transfer.	REMARKS.
		Acres.	Equiva- lent in square miles.			Acres.	Equiva- lent in square miles.		
{ Khalsa	Godhwar	...	194.11	1,24,230	194.11	Besides these 7.75 square miles are re- served as Fuel and Fodder Re- serves.
	Sojat	...	65.	.....	.....	41,600	65.	.....
	Sivana	...	.....	3,840	.....	3,840	6.	.....
	Raipur	...	13.	.....	.....	8,320	13.	Parcha No. 207 dated 21st July 1898.
	Ghanerao	...	5.12	.....	.....	3,277	5.12	
	Barantia	...	1.50	.....	.....	960	1.50	
	Babra	...	1.50	.....	.....	960	1.50	
	Bar	...	.75	.....	.....	480	.75	
	Sumel	...	3.	.....	.....	1,920	3.	
	Pi, Basi, Banwal, Maya- pur, Kalyatra, and Bidad	...	11.50	.....	.....	7,360	11.50	
{ Jagir	Mokalsar, Ramania, Mawri, Gungrot, Go- lia, Piploon, Gudha- na, Sener, Kundal, Sela, Janpur, Mangi, Dhiran, Telwara and Bhagwan	.....	.....	21,760	.....	21,760	34	
	Total	1,89,107	295.48	25,600	.....	2,14,707	335.48	

ANNUAL FORM NO. 50.*Forest Department, Marwar State. Register of Breaches of Forest Rules during 1898-99.*

Forest Range and Civil Pergana.	Cases pending from 1897-98.	NEW CASES OF THE YEAR.						Total cases.	DISPOSED OF DURING THE YEAR.						Cases pending at close of the year.	Remarks.
		Injury to forest by fire.	Unauthorised felling or appropriation of wood and minor produce.	Grazing without permission or in tract in which grazing is prohibited.	Other offences.	Total new cases during the year.	Convictions.		Acquittals.		Total.					
							Cases.		Per-sons.	Cases.	Per-sons.	Cases.	Per-sons.			
A.—Cases tried by Magistrates:—																
Godhwar { Sewari ...	7	...	12	1	...	13	20	...	...	18	18	18	18	18	2
Desuri ...	2	...	1	.....	1	2	4	1	3	1	1	2	4	2	2
Sojat ...	...	...	4	.....	3	7	7	3	8	4	5	7	13	...	...
Sivana ...	...	...	1	.....	...	1	1	...	...	...	...	...	...	...	1
Total ...	9	...	18	1	4	23	32	4	11	23	24	27	35	5	5	
B.—Cases compounded by Forest officials:—																
Godhwar { Sewari ...	...	3	91	106	27	227	227	227	661	...	...	227	661	...	...
Desuri ...	...	1	19	5	3	28	28	28	81	...	...	28	81	...	...
Sojat ...	...	1	97	11	...	109	109	109	144	...	...	109	144	...	...
Sivana ...	...	...	...	71	5	76	76	76	120	...	...	76	120	...	...
Total ...	...	5	207	193	35	440	440	440	1,006	...	...	440	1,006	...	...
Raipur ...	...	...	...	.....	...	...	...	...	...	...	...	...	...	...	...
Ghanerao ...	...	...	81	21	...	102	102	102	139	...	...	102	139	...	...
Total Jagir Ranges ...	...	...	81	21	...	102	102	102	139	...	...	102	139	...	...
Grand Total ...	9	5	306	215	39	565	574	546	1,156	23	24	569	1,180	5	5	

ANNUAL FORM NO. 51.

Forest Department, Marwar State. Area of Forest tracts protected from fire during the dry season of 1899.

Range.	Forest tracts.	Year in which protection commenced	Area actually protected up to 15th June 1898.	DURING DRY SEASON 1899.			Cost during the season.	REMARKS.
				Area attempted to be protected	Failures.	Actually protected.		
Khalisa. { Godhwar ... { Sojat ...	Sewari block ...	1891	1,13,415	1,13,600	4	1,13,596	131	
	Desuri " ...		10,618	10,630	.....	10,630	83	
	Kantalia " ...	.....	41,570	41,600	.....	41,600	138	
	Siwana " ...	.....	.....	3,840	.....	3,840	.....
	Total ...		1,65,603	1,69,670	4	1,69,666	352	
{ Raipur Ghanerao Jaitaran Parbatsar Sivana	Raipur ...	1894	7,665	8,320	.....	8,320	Rs. 21	
	Ghanerao ...	1895	1,580	3,277	.....	3,277	20	
	Bar, Barantia, Babra and sumel ...	1896	4,320	4,320	.....	4,320	.....
	Pi, Basi, Banawal, Mayapur, Kalyatra and Bidiad ...	1897	7,360	7,360	.....	7,360	.....
JAGIR. { Mokalsar, Ramnia, Mawri, Gungrot, Golia, Piploon, Gudha Nal, Sener, Kundal, Sela, Ganpur, Mangi, Dhiran, Telwara and Bhagwan	Mokalsar, Ramnia, Mawri, Gungrot, Golia, Piploon, Gudha Nal, Sener, Kundal, Sela, Ganpur, Mangi, Dhiran, Telwara and Bhagwan ...	1898	.....	21,760	.....	21,760		
	Total ...	.....	20,925	45,037	.....	45,037	41	
	Grand Total ...	.....	1,86,528	2,14,707	4	2,14,703	393	

ANNUAL FORM NO. 54.

Forest Department, Marwar State. Outturn (in cubic feet solid) of timber and fuel during the year 1898-99 and Agency of exploitation.

Range.	TIMBER IN THE ROUGH LOGS.				TIMBER IN THE ROUGH FOLDS.					SAWN OR SQUARED TIMBER.				MISCELLANEOUS.				FUEL.				TOTAL.
	Raj Agency.	Purchasers.	Free grants.	Right holders.	Total.	Raj Agency.	Purchasers.	Free grants.	Right holders.	Total.	Raj Agency.	Purchasers.	Free grants.	Right holders.	Total.	Raj Agency.	Purchasers.	Free grants.	Right holders.	Total.		
Godh-war {	Sewari block...	...	...	...	...	25	24,841	...	15,794	40,660	...	...	...	...	...	19,712	1,01,068	...	1,55,080	2,75,860	3,16,520
	Desuri ...	...	...	...	...	474	5,220	...	3,201	8,994	...	...	...	...	...	5,840	33,460	...	28,700	68,000	70,994
Sojat	1,143	10,620	...	9,412	21,175	...	...	...	...	...	...	20,671	...	55,176	75,847	97,022	
Siwana	201	...	...	291	...	...	...	...	...	...	...	...	7,540	7,540	7,831	
Parbatsar	4,048	...	...	4,048	4,048	
Total	1,642	40,981	...	28,497	71,120	...	...	...	...	...	25,552	1,50,247	...	2,40,496	4,31,295	5,02,415	
Raipur	1,541	...	2,601	4,142	...	...	...	...	...	10,000	99,464	...	32,160	1,41,624	1,45,706	
Ghanearo	661	...	2,703	3,364	...	...	...	...	...	...	1,800	...	5,320	7,120	10,484	
Total	2,202	...	5,304	7,506	...	...	...	...	...	10,000	1,01,264	...	37,480	1,48,744	1,56,250	
Grand Total	1,642	43,183	...	33,801	78,626	...	...	...	...	...	35,552	2,60,511	...	2,83,976	5,80,039	6,58,665	

ANNUAL FORM NO. 55.

Forest Department, Marwar State. Outturn of Minor produce during the year 1898-99.

Range.	Description of produce.	RAJ AGENCY.		PURCHASERS.		FREE GRANTS.		RIGHT-HOLDERS.		TOTAL.		Remarks.
		Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	
Sewari block	Bamboos ...	3,050	240	13,536	317	964	13	17,550	570	By contract.
	Grass (mannds) ...	451	113	.....	.....	..	..	.....	.....	451	113
	" (cart loads) ...	.....	..	520	.....	..	..	.....	.....	1,480	.....
	" (Head loads) ...	.....	..	11,878	302	..	..	19,593	1,728	31,471	2,030
	Grazing (cattle) ...	.....	..	410	339	..	..	11,795	1,887	12,205	2,226
	Mohya (Head loads) ...	.....	..	1,312	82	..	..	1,472	60	2,784	142
	Kamri " ...	.....	..	418	39	..	..	3,818	344	4,236	383
	Honey and wax ...	.....	..	.....	201	..	..	.....	.....	.....	201
	Skin ...	.....	..	.....	193	..	..	.....	.....	.....	193
	Miscellaneous... ..	.....	..	.....	186	..	..	.....	187	.....	373
Desuri	Bamboos ...	612	14	20,953	618	27,505	632	By contract.
	Grass (mannds) ...	118	145	.....	.....	..	..	.....	.....	118	145
	" (cart loads) ...	109	27	38	10	..	..	144	30	291	73
	" (Head loads) ...	.....	..	1,880	31	..	..	14,515	184	16,395	215
	Grazing (cattle) ...	.....	..	1,384	656	..	..	4,596	1,195	5,980	1,851
	Kamri (Head loads) ...	166	14	1,410	111	..	..	1,028	83	2,604	208
	Honey and wax ...	.....	..	.....	16	..	..	.....	.....	.....	16
	Mohya (Head loads) ...	.....	..	16	1	..	..	.....	.....	16	1
	Miscellaneous... ..	38	9	925	152	..	..	2,862	93	3,825	254
	Total Carried over ...	4,544	562	60,680	3,254	..	..	61,747	5,810	1,26,971	9,626

ANNUAL FORM NO. 55.—(Continued.)

Forest Department, Marwar State. Outturn of Minor produce during the year 1898-99.

Range.	Description of produce.	RAJ AGENCY.		PURCHASERS.		FREE GRANTS.		RIGHT-HOLDERS.		TOTAL.		Remarks.
		Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	
Sojat	Total Brought forward	4,544	562	60,680	3,254	..	..	61,747	5,810	1,26,971	9,026	
	Bamboos	.....	..	736	17	..	..	.....	.....	736	17	
	Grass (maunds)	150	30	.....	.....	..	..	.....	.....	150	30	
	" (cart loads)	.....	..	.....	.....	..	..	1,810	454	1,816	454	
	" (Head loads)	.....	..	1,282	20	..	..	2,654	15	3,936	35	
	Grazing (cattle)	.....	..	715	310	..	..	6,781	1,419	7,446	1,729	
	Kanuri (Head loads)	.....	..	1,015	135	..	..	2,558	219	4,173	354	
Siwana	Honey and wax	.....	..	.....	63	..	..	.....	.....	.....	63	By contract.
	Miscellaneous	.....	..	5,801	277	..	..	144	2	5,945	279	
	Grass (cart loads)	.....	3	56	14	..	..	700	175	756	192	
	" (Head loads)	.....	..	343	5	..	..	1,417	18	1,760	23	
	Grazing (cattle)	.....	..	379	149	..	..	2,069	433	2,448	582	
	Pala (cart loads)	.....	..	8	4	..	..	100	50	108	54	
	" (Head loads)	.....	..	14	1	..	..	.....	.....	14	1	
Parbatsar	Grass (Head loads)	.....	..	54	2	..	..	.....	.....	54	2	
	Grazing (cattle)	.....	..	.....	.....	..	..	688	215	688	215	
	Miscellaneous	.....	..	192	18	..	..	.....	.....	192	18	
	Total	4,694	595	71,875	4,269	..	..	80,624	8,810	1,57,193	13,674	

Raipur	Grass (Head loads)	...	48	8	600	9	...	...	22,817	623	23,465	640
	" (cart loads)	...	.....	...	10	5	...	...	.....	.....	10	5
	Grazing (cattle)	...	.....	...	622	281	...	...	3,887	1,620	4,509	1,901
	Pala (cart) ...	...	.....	...	.....	.....	...	...	50	25	50	25
	" (Head loads)	...	.....	...	.....	.....	...	...	105	7	105	7
	Honey and wax	...	.....	...	.....	16	...	...	.....	.....	.....	15
	Kamri (Head loads)	...	.....	...	1,612	87	...	...	1,234	111	2,846	198
	Miscellaneous...	...	.....	...	.....	.....	...	...	8,897	295	8,897	295
	Bamboos	...	.....	...	64	2	...	...	1,090	25	2,060	27
	Grass (cart loads)	...	.....	...	.....	.....	...	...	59	15	59	15
Ghanerno	" (Head loads)	...	.....	...	.....	.....	...	...	13,411	202	13,411	202
	Kamri	...	.....	...	.....	.....	...	...	606	43	506	43
	Grazing (cattle)	...	.....	...	.....	.....	...	...	979	141	1,153	207
	Mohya (Head loads)	...	.....	...	3	2	...	...	163	5	163	5
	Pala (Head loads)	...	.....	...	.....	.....	...	...	65	2	65	2
	Miscellaneous...	...	.....	...	.....	.....	...	...	828	25	1,049	50

Total		...	48	8	2,911	401	392	89	54,997	3,139	58,348	3,637
Grand Total		...	4,742	603	74,786	4,670	392	89	1,35,621	11,949	2,15,541	17,311

[illegible]

ANNUAL FORM NO. 56.—(Continued.)

Forest Department, Marwar State. Accounts of Timber and other produce cut or collected by Raj Agency and brought to sale Depots or sold locally during the year 1898-99.

Particulars.	No. or quantity	Cubic feet.	TOTAL OF EACH HEAD.		Particulars.	No. or quantity.	Cubic feet.	TOTAL OF EACH HEAD.	
			No. or quantity.	Cubic feet.				No. or quantity.	Cubic feet.
SOJAT RANGE									
Golia	1,302				Danda	86			
Ins	113				Thekri	53			
Upla	92				Ins	19			
Dingar	3,703				Paga	158			
Peed	216				Dingar	62			
Danda	2,099				Kani dhan	100			
Musal	4				Mayal	11			
Thobli	21				Golia	2			
Kani	2				Singri dhan	63			
Pat	12				Balli	9			
Beola	52			7,616	" khair	23			
JODEHPUR.									
Chokhat	2				Bank	20			
Ber wood	52				Peed	221			
" Danda	71				Thapa	1			
Nim wood	10				Musal	2			
Shisham	8				Hal	6			
Ber lath	1				Beola	1			
Baoli arat	5			149	Jura	1			
Total true receipts									
9,193									
II. Cross receipts—									
870									

Jodhpur Range (mds) ...	239	Utilized by the Department Desuri ...	3
Desuri " (carts) ...	157	Total ...	3
Total ...	5,739	Total true disposal ...	5,500
II. Gross receipts.			
Jodhpur Depot ...	50	II. Gross disposal.	
Total gross receipts ...	50	Sewari Range ...	50
Total Receipts ...	5,789	Total ...	50
Grand Total ...	7,269	<i>Balance at close of the year—</i>	
		Sewari Range ...	1,518
		Desuri " ...	143
		Jodhpur " ...	58
		Total balance ...	1,719
		Grand Total ...	7,209
CHAR COAL.			
<i>Balance at commencement of the year—</i>		Disposal—	
I. True Receipts.		I. True disposal.	49
		Sold locally ...	115
<i>Received from forests during the year—</i>		Removed by purchasers from Depot ...	38
Sewari Range ...	202	Struck off on account of being damaged	
Total true receipt ...	202	II. Gross disposal.	202
II. Gross Receipts.			
Jodhpur Sub-Range ...	115	Sewari Range ...	115
Total Receipts ...	317	Total gross disposal ...	115
		Grand Total ...	317

ANNUAL FORM NO. 56.—(Continued.)

Forest Department, Marwar State. Accounts of Timber and other produce cut or collected by Raj Agency and brought to sale Depots or sold locally during the year 1898-99.

Particulars.	No. or quantity.	Cubic feet.	TOTAL OF EACH HEAD.		Particulars.	No. or quantity.	Cubic feet.	TOTAL OF EACH HEAD.	
			No. or quantity,	Cubic feet,				No. or quantity.	Cubic feet.
BAMBOOS.									
Disposal.									
True disposal.									
Removed by purchasers from the Depot—									
Jodhpur ..	..	..	2,366		Jodhpur Sub-Range ...	...		1,917	
Receipts.	Total ...		2,366		Total true disposal ...	...		1,917	
I. True receipts.									
Removed from forests during the year—									
Sewari Range ...	...	...			II. Cross disposal.	...		3,000	
Total true receipts ...					Sewari Range ...	...		3,000	
II. Cross Receipts.									
Pali Range ...	...	...			Total cross ...	...		3,000	
Total Receipts ...					Balance at close of the year—	...		449	
Grand Total ...					Jodhpur ...	...		3,000	
					Pali Range ...	...		3,449	
					Total Balance ...	...		8,366	
					Grand Total ...	...		

MINOR PRODUCE.		MINOR PRODUCE.	
<i>Balance at commencement of the year—</i>			
Sewari Range-grass	...	1,528	924
Desuri	...	26	982
Sojat	...	2,279	1,196
Total balance	...	3,833	3,102
I. True Receipts.			
Sewari Range-grass (mds.)		451	496
Desuri	...	1,125	237
"	" (carts)	109	58
Sojat	" (mds.)	235	109
Total Receipts	...	1,920	900
Grand Total	...	5,753	4,002
<i>Balance at commencement of the year—</i>			
Sewari Range	...	549	549
Desuri	...	122	122
Sojat	...	1,080	1,080
Total balance	...	1,751	1,751
Grand Total	...	5,753	5,753

ANNUAL FORM NO. 58.

Forest Department, Marwar State. Summary of Revenue of Marwar Forest during 1898-99.

[illegible]

ANNUAL FORM NO. 58. — (Continued)
Forest Department, Marwar State. Summary of expenditure of different ranges of Marwar Forests during 1898-99.

BUDGET HEADS.		Direction.	Sewari range.	Desani	Sojat range.	Parbat-ar range.	Siwana range.	Jodhpur range.	Total.	Remark.
A. CONSERVANCY.										
<i>I. Timber and other produce removed from the forests by Raj Agency.</i>										
(a)	Timber ...	...	6 1 0 109	1 4 151	0 3	...	...	...	270	2 7
(b)	Firewood and charcoal ...	...	1,683	15 1 2 + 0	1 5 0	...	...	...	1,687	11 9
(c)	Bamboos ...	...	51	8 0	...	...	...	...	51	8 0
(d)	Grass and other minor produce ...	...	53	5 3 43	8 0 78	15 0	...	...	375	15 3
<i>II.—Timber and other produce removed from the forests by purchasers and consumers.</i>										
<i>III.—Confiscated drift and waifwood.</i>										
<i>IV.—Revenue from forest not managed by Raj.</i>										
(a)	Duty on foreign timber and other forest produce	...	...	...	...	...	...	...	...	...
(b)	Revenue from shared and private forests	...	...	...	...	42	1 3	...	42	1 3
<i>V.—Rent of leased forests and payment to share holders in forests managed by Raj.</i>										
<i>VI.—Live stock stores, tools and plants.</i>										
(a)	Purchase of cattle ...	...	...	...	...	...	...	...	...	...
(b)	Feed and keep of cattle ...	...	...	...	...	...	...	...	...	...
(c)	Purchase of tools, stores and plants	...	...	...	...	...	...	...	...	...
<i>VII.—Communications and buildings.</i>										
(a)	Roads and bridges ...	...	196	6 0	...	...	...	...	304	7 0
(b)	Buildings ...	...	160	12 9 100	3 3 82	8 9	...	...	343	8 9
(c)	Other works ...	...	...	...	...	...	...	...	...	...
<i>VIII.—Demarcations, improvements and extensions of Forests</i>										
(a)	Demarcations ...	...	58	4 0 56	7 6 63	12 0	...	...	178	7 6
(b)	Compensation of land and rights	...	...	...	...	...	...	...	...	...
(c)	Surveying and working plans ...	616	11 6	76	8 6 17	10 2 313	9 0	...	951	7 6
(d)	Sowing and planting ...	...	79	15 9 12	7 6 21	4 9	...	...	113	12 0
(e)	Protection from fire ...	...	568	8 0 237	11 7 120	0 0	...	...	926	3 7
(f)	Other works ...	...	...	...	...	...	...	...	...	...
<i>IX.—Miscellaneous.</i>										
(a)	Refunds ...	...	...	...	...	...	...	...	...	...
(b)	Law charges ...	...	...	...	...	...	...	...	...	...
(c)	Other charges	19	3 0	93	4 3 101	13 8 152	12 6	...	402	6 11
Total A. Conservancy ...		681	15 9	3,101	15 9 886	7 1 1088	12 6 42	1 3 36	5,841	1 7

ANNUAL FORM NO. 59.

Forest Department, Marwar State. Accounts current for the year 1898-99.

	Rs.	A. P.	Rs.	A. P.	Expenditure as per annual summary Form No 58.	Rs.	A. P.	Rs.	A. P.
Cash balance ...	.....		161	6 9					
Revenue as per annual summary Form No. 58									
Forest conservancy...	28,643	1 4			Forest conservancy...	20,925	6 3		
Arboriculture ...	242	15 6			Arboriculture ...	20,542	4 1		
Gardens ...	187	3 2			Gardens ...	10,060	10 7		
Fuel and Fodder Reserves ...	280	12 6			Fuel and Fodder Reserves ...	1,208	13 7		
Bera baoris ...	375	7 3			Bera baoris ..	6,747	5 8		
Miscellaneous ...	35	0 7	29,764	8 4	Miscellaneous ...	68	1 6	59,552	10 6
Forest cash Remittances Local.					Forest cash Remittances Local.			29,710	11 6
Cheques drawn ...	.....	.....	60,400	0 0	Remittances to treasury ...	.....	.....	54	11 4
Inter divisional transfer ...	.....	.....	28	0 8	Inter departmental transfer ...	.....	.....	2,115	4 9
Inter departmental transfer ...	.....	.....	130	1 5	Exchange of coin ...	.....	.....	51,078	10 7
Exchange of coin ...	.....	.....	2,293	0 10	Advances recoverable	.....	.....	978	6 1
Advances recoverable	.....	.....	50,713	4 9	Balance	.....	.....
Total ...	.....	.....	1,43,490	6 9	Total ...	.....	.....	1,43,490	6 9

ANNUAL FORM NO. 60.

Forest Department, Marwar State. Revenue received and outstanding on account of Revenue for the year 1898-99.

Range.	Particulars.	Outstanding at commencement of the year.	Value of sales and other revenue during the year.	Total.	Account realized during the year.	Balance due to the department at end of year.	REMARKS
DEPARTMENT Raj { Sewari Desuri Sojat Siwana Parbatsar Jodhpur Direction	Forest Conservancy ...	541	15,761	16,302	14,623	1,678	8 3
	Forest Conservancy ...	506	6,255	6,761	6,246	515	8 6
	Forest Conservancy ...	169	6,282	6,451	6,347	104	4 0
	Forest Conservancy ...	.....	1,096	1,096	1,006	.....	.....
	Forest Conservancy ...	.....	363	363	303	.....	.....
	Forest Conservancy ...	129	396	525	396	129	10 6
	Arbiculture and Gardens	.....	.....	.....	.....	.....	.....
	Fuel and Fodder Reserves and Bern-	192	700	893	691	201	12 2
	Baories ...	.....	.....	.....	.....	.....	.....
	Total	1,339	30,855	32,394	29,764	2,629	11 6
DEPARTMENT Raj { Raipur Ghanero Bar Barantia Babra Sumel	Forest Conservancy ...	3	4,454	4,457	4,443	14	0 0
	Forest Conservancy ...	.....	833	833	.....	.....	.....
	Forest Conservancy ...	.....	273	273	273	.....	.....
	Forest Conservancy ...	.....	163	163	163	.....	.....
	Forest Conservancy ...	.....	302	302	302	.....	.....
	Forest Conservancy ...	.....	530	530	530	.....	.....
	Forest Conservancy ...	.....	.....	.....	.....	.....	.....
	Forest Conservancy ...	.....	.....	.....	.....	.....	.....
	Forest Conservancy ...	.....	.....	.....	.....	.....	.....
	Forest Conservancy ...	.....	.....	.....	.....	.....	.....
	Grand Total	1,542	37,413	38,955	36,312	2,643	11 6

